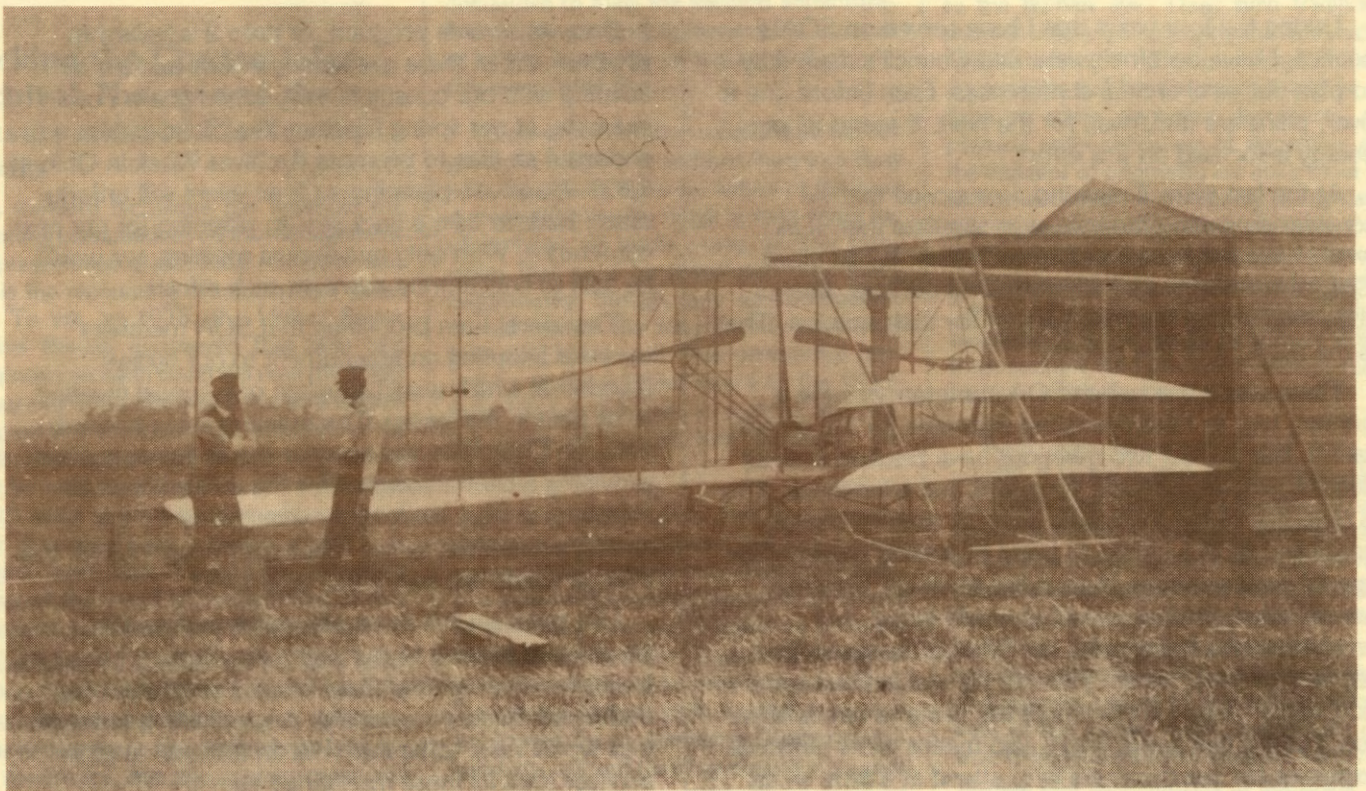


The Ohio Archivist

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Wright State hosts Dayton meeting with Wright-Patterson Air Force Base Oct. 24-25



The Wright Brothers, their airplane, and hangar at Huffman Prairie, Dayton, Ohio. Photo courtesy of Wright State University Archives.

Archivists from around Ohio will gather in Dayton on October 24 and 25 for the SOA fall meeting. Wright State University will be our host, with meetings on Thursday the 24th being held in the Wright State University Center and on Friday the 25th at the nearby Wright-Patterson Air Force Museum.

Session I on Thursday will concentrate

on the challenges and rewards of handling special case materials. Scheduled speakers are Floyd Barman of the Clark County Historical Society, discussing artifacts and ephemera; Jonathan Dembo of the Cincinnati Historical Society on architectural records and site plans; and Bonnie Linck of the Ohio Historical Society talking about family Bibles, particularly those containing family histories.

After lunch, Session II will feature "Ohio Public Records Legal Cases." Presenters will be Kirk Albrecht from the Ohio Attorney General's Office, John Stuart from the Ohio Historical Society, and Jim Ripley, Metro Editor at the Dayton Daily News. Then, after a brief break, Rai Goerler of The Ohio State University will speak on a new records management program being planned for Ohio's State colleges and universities.

After the formal sessions, a tour of the Wright State University Archives is planned, followed by a reception there. Restaurant tours and an evening mixer will round out the day.

On Friday, October 25, two morning events are scheduled. The first is a self-guided tour of the Wright-Patterson Air

Force Museum. The second is a behind-the-scenes tour of the Museum's restoration area, guided by Bob Spaulding of the Museum staff. The Friday sessions will end at noon.

A brochure including full details, maps, and a registration form will be sent out in September. Cost of registration (excluding

meals) will be \$15 for SOA members and \$20 for non-members.

For more information about the fall meeting, contact Regina Entorf, Special Collections Librarian at Wittenberg University: 513/327-7514.

PRESIDENT'S COLUMN

Does SOA need two meetings a year?

During the four years that I have served on SOA's council, I have become aware that Council's main duty is to plan our semi-annual conferences. Even before one is over, plans are underway for the next. It seems all our energy is focused on this effort.

At the last council meeting, I proposed that we consider amending the bylaws to stipulate that SOA would have only one meeting each year. While other Council members were supportive of the idea, they suggested asking the membership for their opinion. That is the purpose of this column.

There was a time when SOA conferences were a primary way to raise operating expenses for the organization. But the last two meetings have resulted in small deficits, despite excellent programs and attendance. This is reflective of the increasing costs of running conferences and SOA's efforts to bring in outside speakers for special programming. Even if the speakers' expenses are excluded, mailing, printing, room rental, and reception costs keep going up. Without increases in registration fees - which I believe no one in the organization wants - future conferences are likely to run deficits too. Having two conferences also means more personal expenses for our members who attend at a time when fewer of our employers are picking up the tab for conference travel. Rather than forcing many of our members to choose between attending the fall or spring meeting, we would probably double our attendance rate at a single meeting if only one were offered each year.

But even without considering the economic reasons, the question remains whether two meetings a year are necessary. I believe that because so much of Council's time is spent on program planning, we have no time for new initiatives. These might include a public service

project, an awards program, or even a scholarship program. All of these are worthy efforts and are in keeping with our constitutionally-stated goals. For example, at our spring meeting, the membership endorsed an idea to promote Archives Week in Ohio in 1992. However, planning such an event will unfortunately have to take a back seat to planning for our next conference. With only one annual meeting, we would be able to concentrate more on such efforts.

Therefore, I am proposing that SOA members consider adopting an amendment to our bylaws (Section 6) which would stipulate one annual meeting, to be held in the spring. The meeting could rotate between Columbus and another site in the state, thus providing a central location for the convenience of members at least every other year. Since we are already committed to two meetings through 1992, this change would not take effect until 1993.

I do not view this as an attempt to reduce the services we provide to our members. Rather, I see it as a way to serve our members in ways other than the traditional conference setting. Any reduction in meetings would have to be met with an increase in other services such as those mentioned above.

Before proposing this change at our upcoming spring meeting in Columbus, I would like to hear from the membership on the subject. Please let me know your thoughts. I would be happy to publish selected letters representing all sides of the issue in the spring Ohio Archivist.

Barbara Floyd
SOA President

Archival Theory and the Preservation of Electronic Media

Frederick J. Stielow, Catholic University of America

The author is an associate professor at The Catholic University of America, where he teaches in the area of archives and information technology. He has a dual Ph.D. in History and American Studies plus an MLS with an archival concentration and has published five books and more than fifty articles.

ABSTRACT: This article is written as a primer on the current state of preservation theory and practice. Archivists are cautioned to look for standards and warned against the untutored embrace of the "cutting edge" of new technology. The writer also presents commonsense guidelines and includes a brief analysis of specific magnetic and optical storage media, including WORM, erasables, and DAT.

Ducking the Cutting Edge: Archival Theory and the Preservation of Electronic Media¹

A standard technique has emerged for beginning presentations on the management and preservation of electronic materials, and that is the recounting of information disasters. To wit, in 1975, the United States Census Bureau discovered that only two computers on earth could still read the 1960 census; the computerized index to a million Vietnam War records, which was entered on a hybrid motion picture film carrier, cannot now be read; and the bulk of NASA's research since 1958 is threatened because of poor storage. These are akin to the Luis Borges' short story in which the computer power of the world is concentrated in one mammoth machine—and the key is lost.

The essential question for the new Information Age may well be how to save the electronic memory. The answers will come from two arenas—the technology field for the mechanics, but also management and archives for actual applications.²

Archivists, the focus of this discussion, are being enveloped by the computer revolution on many levels. We deal with automation as a tool for office management and the control and description of collections. In keeping with the archival charge to maintain information of enduring value, we also find ourselves receiving machine readable files as a type of deposit. According to the Archivist of the United States, Don Wilson, archivists now face a "window of opportunity" in regard to the care and preservation of the electronic records. He indicates that the field must come to the fore to prove itself by displaying

knowledge of information management and the standards necessary to meet this challenge.³

Not all archives need to be totally proactive, or have the mission and resources of the National Archives. Individual archivists are circumscribed by the pragmatic realities of budgets and the types of media actually used in their institutions. Still, some professional knowledge of the nature of the new media is demanded to fulfill the modern administrative and stewardly obligations of the archivist or others in charge of the survival of machine-readable files.

Archival preservation solutions should begin from a dynamic archival theory to deal with the equally dynamic nature of the new storage vehicles. No single answer exists for all archives or media—only general principles that must be reanalyzed over time. Significantly, though, any such evaluation should include the longitudinal vision and holism of historicism. This perspective provides a useful counterbalance to the short-term blinders inherent in systems analysis, the mode of thought that dominates the computer world.

One must recognize that the financial concerns of the computer industry do not necessarily serve the preservation of records. The automation industry has vested interests in producing new and proprietary products with little continuity or thought of preservation—the reverse of an archival perspective. Too many buyers pick up the industry's habits and the excitement of "cutting-edge" products without thinking about future consequences. The results are technology-driven selections fraught with rapid obsolescence, compatibility problems, million dollar mistakes, and vaporware. Left in such a context, preservation becomes "use it or lose it," the archival alternative to maintaining Smithsonians of outmoded equipment.

As the following suggests, solid archival practice and theory emerge away from the edge. They flow from a consumer- and information-driven perspective. The lessons are that electronic preservation only has a chance at the place where standards exist and where we can reasonably project some constancy over time.

Archival theory and electronic preservation

Historically, archival theory developed from physical abilities to read and analyze information as inextricably linked to the paper or parchment it was written on "human-readable records." This is no longer sufficient. Stare as one might, the information patterns on a floppy disk are indecipherable to the human eye. Thus, such traditional archival skills as paleography and diplomatics must be rethought. Although contextual analysis remains and legal signatures can be affixed to some electronic documents, the physical authentication of signatures and the concept of originality are quite moot for instruments that can be readily manipulated and copied in an undetectable fashion. Even the sacred precepts of original order and provenance must be reconsidered in light of "virtual documents" and "groupware," where elements of a text could have been drawn from multiple data sources created by many authors at different times and places.⁴

Such reassessment does not deny the validity of earlier hypotheses or approaches, but builds upon them with a healthy reexamination for enhancement. Theoretically, preservation arises from the doctrine of stewardship, but electronic records alter a portion of this role. The concept of intrinsic or artifactual value, for example, disappears, while security consciousness may be heightened. The guarded nature of archival repositories with closed stacks, vaults, and climate controls emerges with extra value for the off-line storage and safeguarding of computer files against attack.⁵

Security transfer and backup storage are processes which also tend to tie the archives directly into the active information flow within their institutions. Instead of waiting for deposits near the end of the life cycle, electronics allow for the routinization of archival deposits. Valuable data can be automatically conveyed to the archives at data entry, a key phase in the life cycle, or as part of normal backup procedures. This is also in keeping with the standard doctrine that effective preservation lies with "front-end" controls from the moment of creation, rather than expen-

sive conservation repairs later in the life cycle.

Electronic preservation is also rooted in well-established principles of redundancy and sequestration with precedents that date back to the origins of writing in ancient Sumer and Egypt. Typical procedures involve the production of a sacrosanct master record from which multiple user copies that are disbursed to various sites and periodically recopied. As with all media, such replication and extra storage space come with a price. Preservation simply implies added expense, hence a heightened need for cost-benefit evaluations. Electronic media elevate such concerns and add new ones. Archivists of machine readable files need to be attentive not only to costs for storage, recording media, and handling, but to potentially high charges for hardware, software, and their maintenance.

In addition, computer records bring new information categories for preservation. Unlike the unity on paper, they typically suppose two physically distinct sections: 1) a storage flat file of raw data and 2) a logical structure file that controls the data's visual/intellectual representation (e.g., the row and column definitions from a spreadsheet). Both should be captured. For long term preservation purposes, however, the logic file is now too often ignored.⁶ Yet such structures promise to revolutionize archival practices. Archivists can look forward to a restructuring of descriptive theory to include the capturing of process information and automatic item level description, as well as the sub-item level descriptive possibilities of "meta-data" about the contents (e.g., field titles or headers "To:", "From:", "Date:", "Subject:").⁷

The benefits of assessing logical structures strengthen the necessity of structural appraisal for electronic data. For example, we could argue for additional analysis in terms of the best storage media for types of records. Not all computer records need to be digitally saved; some may be better routed to paper or something like computer output microfilm (COM)—perhaps with the readily indexable or "strippable" headers retained on-line.⁸ Hence, we can add a new compositional or morphological analysis to evaluate:

1. The format of the information to distinguish between fixed communications (memoranda, letters, directives) and more mutable data bases with the potential for mathematical analysis and new combinations;

2. The ease and utility of removing indicative pointers to make separate indexes to the contents of the document (especially for electronic mail and internally produced communications);

3. The degree to which the logical structure cannot be replicated in another medium (e.g., CAD, hypertext, intelligent systems, and spreadsheets).

Similar hypothesizing dismisses the originating storage medium from ongoing preservation concerns. Storage is theoretically incidental to a process where the information is only truly displayed (i.e., human-readable) when engaged in the computer's active memory (RAM). The originating medium lacks any informational value and is of interest only as a potential transfer vehicle into the archives. Therefore, one segment of preservation theory is freed from a focus on an information-medium continuum (e.g., the letter on paper or the bound book) to an information independent model.

Note that the preceding does not liberate archivists from the demands of understanding the nature of machine readable records, but only from preserving the information in one particular format. We actually gain the added burden of a technical appraisal and sampling to insure readability of the information at the point of transfer.

Legal issues also remain—in particular, the division between physical ownership and copyright. Assuming the archives owns both rights, there is no problem in making another copy into any medium (One would, however, need to be especially careful if marketing a product.) Title 17 of the U.S. Code, *Copyright*, from the 1976 Copyright Act, also allows the library or archives as physical owners to make a copy "in kind" for preservation purposes. Whether copying for preservation purposes to a new media is legally permissible is an interesting question that may ultimately turn on our own policy development.

Archivists too must be concerned with the media and machinery specifically under our control. At the current time, this suggests keeping up with two broad categories of automated storage: magnetics, which we cannot avoid; and optics, which are entering the scene.⁹

Magnetic storage media

There are actually two magnetic formats of general interest. The first are the digitized computer tapes that have been the focus of much of the preceding discussion. The second (and for preservation, much more diffi-



cult) variety are analog recordings on sound tapes and video. For, where digitized records can be copied exactly, each new generation or recopying of a video or audio tape produces a loss in signal. In contrast to audio tapes with a longer history and standard formats, videotapes are more problematic. The latter are quite short-lived (no matter what the television commercials say about permanent memories) and appear in several noncompatible versions.¹⁰

Any "permanent" solution will arise through converting the analog wave structures into binary code (digitization). Available digital solutions at this moment, however, are limited by the great amount of storage capacity required. The practical choices are either optical storage, which is still prohibitively expensive for most nonpublished audio and video materials, or helical scanning. Borrowing from videotape concepts, the latter gathers information by rotating drums with two or more heads to scan the moving tapes in diagonal stripes. It is also a prime illustration for avoiding the cutting edge.

Helical scanning provides initially high quality reproduction and almost unbelievable compression ratios; for example, DAT (Digital Audio Tape) samples music at a rate as

high as 48,000 times a second and can eat 2.8 MB of storage in a minute. Yet the equipment is sensitive to movement and even microscopic particles can quickly throw it out of line. Moreover, according to hearsay evidence from engineer contacts in the Association of Recorded Sound Collections (ARSC), longevity is quite suspect. DAT was reportedly partially withheld from the market when it was accidentally discovered that its original usable life was a month or so; even now it may last only one to three years.¹¹

In contrast, magnetic tape for fixed head recordings is acknowledged for long-term storage of 50 to 100 years under proper conditions. Work from the early 1980s, such as Ford Kalil's *Magnetic Tape Recording in the Eighties* and Sidney Geller's *The Care and Handling of Computer Magnetic Storage Media*, provides a good starting point to understand proper treatment. The basic rules of thumb are to block the introduction of stray magnets and reduce particulate contamination by banning eating, drinking, smoking, and pencils (the graphite pieces and eraser shavings—use felt tip pens instead). Tapes should be of good quality with a gamma ferric oxide emulsion layer on a 1 to 1.5mm thick mylar base. They are to be evenly wound under playback tension and stored tails out and annually or biannually exercised, preferably on a tape winder/cleaner or device that does not engage the read heads.¹²

Improper conditions during playback can damage the tapes far more quickly than storage. Equipment maintenance is simply an essential element in magnetic preservation. Another recommendation is for filtered, positive pressure air conditioners (to reduce particles in the air). The environment is crucial and should be stable for both storage and playback with nonfluctuating temperature and humidity levels. The most frequently quoted figures advocate a range of from 60 to 70 degrees Fahrenheit (optimum 65) and humidity from 35 to 50 percent (40 or 45 percent optimal).¹³

Given the volatile state of the technology, how likely will the equipment exist to read those fifty-year-old, well-maintained tapes? Instead of thinking about permanent storage media, archivists may need to consider a dynamic program. Unlike the two-hundred-year cycles of the scribal monk in the Dark Ages, we may be recopying every ten years or so onto newer standardized media. The technology is changing so rapidly that even the standards do not stand still. For example, the open face reel with ferric oxide particles—the longest standing storage constant in this area—is itself effectively being replaced by “streaming” to the “square reel” 3480 cartridge with a chromium dioxide emulsion.¹⁴

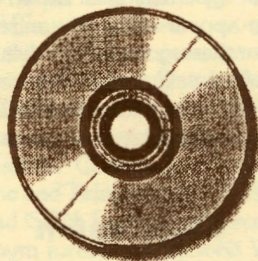
As the following section will indicate, magnetics themselves may not survive in anywhere

near their current state, and this may be to the benefit of preservation. The physical wear and tear on current tapes as they pass the read/write head means that each use is an attack. Traditional magnetics are also labor intensive for storage; they require ongoing attention for proper climate and periodic exercising or they will rapidly degrade. Such intrusive factors naturally lead to a search for other more playback and environmentally-resistant media (like the paper records of yore).

Optical storage media

Optical disks are the new mass storage rage. They offer a physically tough and relatively climate-neutral medium that can be exactly copied without generational loss. The acceptable range for storage and playback conditions, for example, extends from 50 to 120 degrees F and relative humidity from 10 to 90 percent. Because they employ a laser reading mechanism, there is also no wear during use.

Play-only CD ROMs are fairly well established and standardized, but still have problems. Even with SCSI (Small Computer Systems Interface) and High Sierra or ISO 9660 standards for the arrangement of materials on the disk, proprietary searching software and problems with networking may bedevil the user—and there are disasters. Stories exist of a fungus capable of blocking the reading of the disks, as well as reports from England on fogging as label inks ate through to the metal layer. Such difficulties are really minimal; the big question is longevity. The



industry's escalating claims from early ten-year predictions to Sony's or the more reliable French Century Disk's 100-year claim do await confirmation from independent sources. Ten to 25 years seems the best current “guesstimate.”¹⁵

Instead of published CD ROMs, archivists will be more interested in less established WORM (Write Once-Read Many) technology. With 600 MB in the typical 5 1/4" CD version and the promise of gigabytes in the near future, the latter provides an intriguing prospect, potentially replacing microfilm for even legal retention. While hating to look a gift horse in the mouth, archivists need to be wary of this still quite costly option. As the Canadian National Archives has already discovered, standards are lacking for the larger

12-inch disks. The Canadians' pilot project was somewhat jolted when their supplier announced its upgrade to a new, noncompatible disk format a year and a half into their own venture.¹⁶

Only at the CD level can we feel somewhat safe under proposed ISO Continuous Composite Format—but again, will the current formats last even ten years? The archivist just thinking of going this route may even want to hold off to be certain of the survival of WORM technology. The market niche remains fairly small and well under the levels projected since its introduction in 1984. The major manufacturers have already indicated they will stop production to concentrate on more marketable, but far less archivally attractive and currently more expensive rewritable disks.¹⁷

The rewritable or erasable disk is beginning to make waves. Typically not a true optical medium, it is instead a combination of magnetic and optical (M-O) technology. Digitization occurs on a highly resistant ablative (corrective) stratum by heating the bits on the disk to the Curie point, where they can be easily turned on with a weak magnetic impulse. It is very useful for such as the direct downloading from magnetic tapes, for bigger projects that can readily absorb a queue of 30,000 pages, and for the retrieval of pictorial images. (Note: this last is really not for preservation purposes, but for the convenience of users.) Yet it is new. Although tough, environment-independent, and not subject to head crashes, the industry currently promises only a five- to ten-year life span for such encoding. Thus, the basic cautions remain: plan, and do not take the step until truly ready, and then only with equipment that advertises compatibility with standards.¹⁸

Technology and Standards

The keys to success for electronic preservation begin to emerge in the form of careful purchases, commonsense procedures, demands for standards, and the strange list of acronyms you have started to meet. The ideal is hardware- and software-independent open systems—systems where the components parallel the connectivity and interchangeability of your audio stereo system components. These emerge from transportable (not machine-dependent or proprietary) operating systems, like DOS and Unix, plus the standards issued by ANSI, CCITT, and ISO.¹⁹

A little knowledge can go a long way. Even name recognition helps and lends credibility, and here lies the undeniable power of jargon. Archivists should become acquainted with such esoterica as the publishers' use of SGML (Standard Generalized Markup Language) to replicate printer's marks and IRDS (Information Resources Dictionary System)

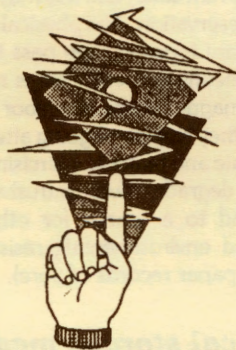
for data element dictionaries. Those with the need should be exposed to Office Document Architectures (ODA/ODIF) and ANSI's X12 EDI protocol for the exchange of standardized business forms. The OSI (Open Systems Interconnection) model of the International Standards Organization is basic and crucial, and is already under some archival purview through MARC and the library world's Z39 bibliographic standard.²⁰

A select section of the community is somewhat belatedly working to insert archival and preservation concerns into the standards process, as well as to translate current developments for our field. By 1990, for example, the Society of American Archivists (SAA) had launched its own Standards Committee, which is trying to clear up potential confusion and publish applicable standards in a somewhat understandable fashion.²¹

A few larger institutions preceded SAA and are in the unenviable position of sitting on the standards boards and pushing at the cutting edge on the world stage. For example, the Canadian National Archives has been quite active, especially with data standards. The U.S. National Archives was responsible for commissioning significant works on magnetic storage and the role of standards for preserving electronic records, especially through its mid-1980s creation of an Archival Research and Evaluation staff. Independent archivists are also leaving their imprint, notably Richard Kesner and the iconoclastic David Bearman with his *Archives and Museum Informatics*.²²

At the more practical level, archivists in general are responding to these new conditions. We are studying and attending continuing education courses. Our incoming professionals also tend to be more computer literate, especially those from programs that meet the 1988 SAA Graduate Education Guidelines.

At the institutional level, the central challenge remains inserting ourselves or at least a consciousness of preservation and standards into the normal process for the selection of hardware and software. This is the backbone of electronic preservation. The commonsense hint is to purchase products only from vendors that advertise compliance with standards, for example, SQL (Structured Query Language) compatibility for any DBMS, or the X.400 standard for electronic mail. Fortunately, such needs can be more readily met than at any time in the past. Consumer demands have reduced the exclusivity of proprietary systems and pushed toward upward compatibility and open systems. The marketplace seems to be working and computer prices are constantly declining in terms of power and storage. Indeed, a likely side benefit of recopying cycles will be reduced transfer and storage costs on more powerful and compact systems.²³



Problems still await, especially for those with the need or desire to be at the cutting edge. They are normally operating in the arena of proprietary systems and away from the safety of standards, and also paying a dollar premium for equipment and the perils of more "bug-ridden" products. Even conservative archivists, however, can expect difficulties. We are all left initially to the mercy of industry pronouncements on longevity and production that may bear little resemblance to truth. The "hard-wired" folks themselves are not known for their ability to communicate; jargon, technical specifications, and what passes for English can offer a bewildering maze to the neophyte. Moreover, as in other areas of preservation, the results of practical research are often confined to a very small group of insiders.²⁴

The basic dilemma, however, is the fluidity and rapid generational turnover in the automation market. Newer types of attractive software with elaborate logical structures, like hypertext and expert systems, constantly appear without standards. Ultimately, purchasing remains a disturbing art form where practical necessity means one must automate, but your selection will shortly cost less and be replaced by more powerful machines.

Conclusion

Archivists must realize we are buying into a process, not a product, and that automation demands careful planning. In contrast to the continuity of human readable records over time, machine readable files are subject to rapid cycles of obsolescence with a constant evolution of standards, equipment, and storage media. Thus, our initial responsibility is toward insuring that purchasing includes at least a consciousness of preservation and standards. We also must try to insert the archives into the flow of electronic records and to be prepared for ongoing recopying and reappraisal. In sum, historical lessons and common sense reinforce the need for oversight. Panaceas are unlikely and the new archival law is that "with each new storage medium, archivists must reexamine their theory and can expect to meet new challenges in preservation."²⁵

Notes

1. Original version presented before the Society of Ohio Archivists, April 11, 1991, with funding under a grant from OCLC.

2. These examples have appeared repeatedly: for example, Kenneth Tibodeau, "Keynote Address," Preservation of Electronic Records Conference, National Archives, March 19, 1991, a presentation which heavily influenced this paper.

3. Don Wilson, "Welcoming Remarks," Preservation of Electronic Records Conference.

4. Luciana Duranti, "Diplomatics: New Uses for an Old Science," *Archivaria* 28 (1989): 7-24 and Janet Turner, "Experimenting with New Tools," *Archivaria* 30 (1990): 91-103. Both show other areas of applicability for the auxiliary sciences.

5. Frederick Stielow, "Archival Security," in James Gregory Bradsher, editor, *Managing Archives and Archival Institutions* (Chicago: University of Chicago, 1988), pp. 207-16.

6. The present ways to save the structures in a value neutral format are by inference from data element dictionaries, which should be constructed in keeping with IRDS standards, and through software-independent notational structures, e.g., SGML for published and SQL for relational data bases. The major alternative for all practical purposes is maintaining the originating software. For the few computer "ancients," we could also pose questions on saving the documentation on the layout of the wired boards or switches flipped on earlier generation computers.

7. For one exploration of such changes, see David Bearman, "Archival Methods," *Archives and Museum Informatics Technical Reports* #9 (Pittsburgh: Archives & Museum Informatics, 1989). Although a good deal of work is being done on this section of archival theory, whole areas remain to be debated, e.g., to parallel discussions in artificial intelligence with an exchange on the dialectic between library-based, "neat" descriptive categories versus the "fuzzy" and relativistic nature of archival description.

8. This paper is not dealing specifically with appraising information values, which can be seen in such works as Michael Anderson, "The Preservation of Machine-Readable Data for Secondary Analysis," *Archives* 17 (1985): 79-93 and Bearman, "Archival Methods" (see note 7). The National Research Council, in *Preservation of Historical Records* (Washington: National Academy Press, 1988), made recommendations for the off-line printing for preservation of all retainable electronic records. This "flat" view is inconsistent with archival appraisal and the

values of some of the logical structures.

9. Charles Dollar, "Appraising Machine-Readable Records, *American Archivist* 41 (1978): 423-30. Note that earlier forms of machine-readable storage, like punch cards and paper tape, may still be in storage. For an introduction into the preservation literature, see Mary Bowling, "Literature on the Preservation of Nonpaper Materials," *American Archivist* 53 (1990): 340-48.

10. Frederick J. Stielw, *The Management of Oral History Sound Archives* (Westport: Greenwood Press, 1985), chapter on conservation.

11. Philips is introducing a new linear scan DAT called DCC, similar to traditional fixed read mechanisms, but with a radically accelerated compression schema that will also play analog tapes. Andrew Pollack, "Another New Wave in Sound," *New York Times*, December 23, 1990, F-9.

12. Sidney Geller, *Care and Handling of Computer Magnetic Storage Media* (Washington: National Bureau of Standards, 1983); Ford Kalil, editor, *Magnetic Tape Recording for the Eighties* (Washington: National Aeronautics and Space Administration, 1982), especially Appendix B, "A Care and Handling Manual for Magnetic Tape Recording."

13. *ibid.*: Geller recommends lower temperature and humidity standards for long-term storage to reduce the exercise interval, but note that the recordings should be stabilized at least a day in the playback environment before reading them. Such recommendations are still open for debate, as are such questions as the propriety of reel storage within neutral plastic bags to reduce potential desiccation of the binder and the preferred nature of the backing layer for computer tapes.

14. Thomas Weir, *3480 Class Tape Cartridge Drives and Archival Data Storage* (Washington: National Archives, 1988). These cartridges typically hold 200 MB and current products appear to have decent longevity, but chromium dioxide is nowhere as stable as ferric oxide particles.

15. *CD-ROM Product Guide* (Parsippany, NJ: Bureau of Electronic Publishing, 1990); William Saffady, *Text Storage and Retrieval Systems* (Westport: Meckler, 1989). In regard to standards, a student in April of 1991 asked to borrow an old Bibliophile data disk from my office. She was unable read the non-ISO 9660 and called the company, which informed her they no longer even had the software for this ancient version from 1986. Tempus fugit.

16. John J. Hay, "Write-once or Not write Once," *Optical Information Systems*

11 (1991): 24-25. In addition to that journal, see *Byte*, *PC-World*, and other computer journals. One can also consult the specialized CD-ROM serials, e.g., *CD-ROM End User*, *CD-ROM Librarian*, and *CD-Rom Professional*. Rewritable players should be designed to the ISO standard to read their WORM cousins.

17. Roger Blais, "Institutional Perspective: National Archives of Canada," Preservation of Electronic Records Conference. I am aware of at least one other archival WORM project in which the data is simply no longer retrievable. Note also the appearance of 3 1/2" optical disks and the increase in scanning speeds.

18. Barry Cinnamon, *Optical Disk Documentation Storage and Retrieval Systems* (Washington: Association for Information and Image Management, 1988); information also from a variety of vendor brochures, including CanonFile 250, Bow Industries' R-50 Series Magneto-Optical Storage Sub-System, and 3M's Rewritable Optical Disk Cartridge Reference Manual. Among other possible preservation concerns in regard to true format compatibility, some have raised questions on unintended overwriting due to failures in write-protect protocols. On archival uses for optics, see David Bearman, "Optical Methods," *Archives and Museum Informatics Technical Report # 1* (Pittsburgh: Archives & Museum Informatics, 1987).

19. Operating systems are the layer of software communicating with the computer and translating storage locations and commands between standard programs (4GLs, e.g., DBMSs, spreadsheets, word processors) and the central processing unit. ANSI, the American National Standards Institute, controls Z39 and is a subset of ISO (International Standards Organization); while the United Nations' Consultative Committee on Telephone and Telegraph (CCITT) works on X.400 and ISDN. For further introduction to the acronym forest, see Victoria Walch, "A Checklist of Standards Applicable to the Preservation of Archives and Manuscripts," *American Archivist* 53 (1990): 324-39.

20. SGML, for example, has standard codes to duplicate printers' marks for the construction of a text. These codes are software-independent and readily translated from one program to the next. SQL commands to define data base structures can be similarly "filtered" to allow the same data base to be manipulated by different DBMSs.

21. Personal files, SAA Standards Committee.

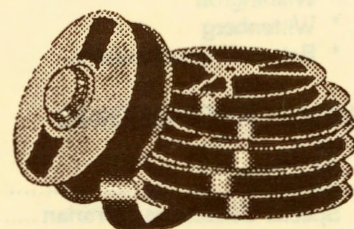
22. Charles Dollar, *A National Archives and Records Administration Strategy for the Creation, Transfer, Access, and Long-Term Storage of Electronic Records of the Federal Government* (Washington: National

Archives, 1990); Margaret Law & Bruce Rosen, *Framework and Policy Recommendations for the Exchange and Preservation of Electronic Records* (Washington: National Institute of Standards, 1989); *National Archives of Canada, Data and Document Interchange Standards and the National Archives* (Ottawa: National Archives of Canada, 1987).

23. Along with higher compaction ratios for magnetics and optics, one can also predict the addition of revolutionary new storage media in the near future, for example, the possibilities from industry work on solid state technology and crystalline storage in ceramics. Note that in June of 1991, IBM announced a new three-inch CD with 100 MB of storage.

24. The problems in communicating preservation advances to the practitioners and the frequent delays in publishing basic findings are at once intriguing and vexatious. Some examples of "folkloric" wisdom just now emerging for analog recordings include the rapid forwarding of stored audio tapes prior to replay, which in some way reduces print through, and the temporary restoration for immediate recopying of faded or separating tapes by baking at a constant 130 degrees F in a convection oven.

25. To examine some of the current thoughts on managing information in the electronic environment from the technology side, such as document image processing, intelligent document management, and optical character recognition systems, see the articles in the "The Paperless Office," *Byte* (April, 1991): 156-241. Although now including standards, such technology-driven views still rarely account for human operators or the idea of a documentary heritage.



THANK YOU!

The Society of Ohio Archivists expresses its appreciation to OCLC (Online Computer Library Center) of Columbus for its generous support of the Spring 1991 meeting in Columbus, in particular for making it possible for Frederick Stielow to come here and present his paper on the preservation of electronic records.

A survey of archives at liberal arts colleges

The following survey was taken in the spring of 1990. In anticipation of a full-scale review of the Denison University Archives by the administration of the college, comparative data from other undergraduate liberal arts colleges was solicited. The survey is limited in scope and the questions reflect local concerns. The rate of response indicates wide interest and common problems. Many respondents added long comments and words of encouragement.

The outcome of any full-scale review is uncertain; respondents reflected this ambivalence. At Denison, the review has resulted in a formal Authority and Mission Statement and a Collection Policy approved by the President. Also approved were guidelines for the orderly transfer of institutional records to the archives. Reconsideration of the status of the archivist has been deferred pending the arrival of a new Director of the Libraries in the summer of 1991.

Summary of Responses

NAME OF INSTITUTION

The following colleges were contacted for comparative data [30 forms sent, 28 returned: 93% response]:

G.L.C.A. COLLEGES

- * Albion
- * Antioch
- * Denison
- * DePauw
- * Earlham
- * Hope
- * Kalamazoo
- * Kenyon
- * Oberlin
- * Ohio Wesleyan
- * Wabash
- * Wooster

OHIO COLLEGES

- * Hiram
- * Otterbein
- * Wilmington
- * Wittenberg
- * Returned questionnaire.

A.C.M. COLLEGES

- * Carleton
- * Colorado
- * Grinnell
- * Knox
- * Lawrence
- * St. Olaf

OTHER COLLEGES

- * Allegheny
- * Amherst
- * Bryn Mawr
- * Bucknell
- * Haverford
- * Mt. Holyoke
- * Smith
- * Swarthmore
- * Williams

PERSON RESPONDING

Title	Number
Archivist	12
Special Collections Librarian	3
Curator	2
Archivist and Special Collections Librarian	1
Archivist & Adjunct Professor of History	1
Assistant University Librarian and Archivist Assistant to Director of Library Services	1
College History and Archives Librarian	1
Coordinator of Archives and Special Collections	1
Curator of Archives & Special Collections	1
Curator of Manuscripts & Archives	1
Librarian of the College	1
Manuscripts Cataloger & Archivist for the College	1
Reference Associate(Special Collections)	1
Reference Librarian	1

Do you have a College or University Archives?

Yes	27
No	1

Is your Archives combined administratively with Special Collections?

Yes	18
No	9
Joint program	1

Do you hold records of other institutions or groups such as local government or church?

Yes	18
No	6

If so, do you derive support from this group?

Yes	6
No	12

Approximate size of your Archival holdings in linear feet.

Range	4485 to 200 linear feet
Cataloged	Range 4185 to 72, average 64%
Uncataloged	Range 2000 to 00, average 36%

Total for G.L.C.A. Colleges

Range	3400 to 200 linear feet
Cataloged	Range 3000 to 100, Average 70%
Uncataloged	Range 1000 to 100, Average 30%

What percentage of your holding are records of your college or university?

Range	100% to 3%
Average	64%

G.L.C.A. Colleges

Range	95% to 33% Average 63%
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Have policies and procedures for transferring records to Archives been established by the administration of your institution?

Yes	10
No	16

Does your institution have a records management program?

Yes	1
No	22

Number of persons on the Archives Staff.

	Average	Range
Professional	1.1	0 to 4
Student	2.1	0 to 5

Ten colleges have support staff ranging from 0.4 to 2.5 persons. Four colleges list volunteer staff; one has two persons and three have one person.

How is the status of the Archivist defined?

Faculty	8
Administrator	11
Staff	5
Others listed were: Faculty/Administrator, Staff/Administrator & Director	

To whom does the Archivist report?

Librarian or Director of Libraries	21
Librarian & President	1
Provost	1
Dean	1
Director of Special Collections	1
Board members of the three participating institutions	1

Does the Archives have a separate budget?

Yes	9
No	16

Who signs budget requests?

Librarian/Director of Libraries	15
Archivist or Curator	5
Archivist with approval for some items by Dean	1

Co-signed by Archivist & Librarian	1
Director of Special Collections	1
Library budget controlled by librarian and Archives endowed funds by the Archivist	1

What year was your Archives established?

Range	1851 to 1990
G.L.C.A. Colleges	
Range	1951 to 1981
Average	1965
Median	1966

Location

Library	22
Library "mostly"	2
Separate Administrative unit housed in the library	1
Library with storage in another building	1
"Other"	1

Florence W. Hoffman
University Archivist
Denison University

SOA Session Reports

Ohio Historical Society — April 11-12, 1991

Thursday, April 11

"Grant Sources for Local History in Ohio." George Parkinson, Ohio Historical Society (chair); Jill Harris, Ohio Historical Society; James Strider, Ohio Historical Society; Oliver Jones, Ohio Humanities Council.

Jill Harris of OHS, who is working on the revitalization of NHPRC in Ohio, provides information on NHPRC grant programs to interested persons in the State of Ohio. She explained the structure of the Commission, established with the National Archives in 1934. The Commission itself is composed of 15 members and is authorized to undertake a wide range of activities related to documenting sources on U.S. history. It funds two programs, the publications program and the records program, which is the present topic. It meets three times a year under the chairmanship of the Archivist of the United States and approves total, partial, or conditional funding for projects; proposals for revisions can also be submitted. The Commission has a support staff that keeps the programs running between its official sittings. The Records Program staff does such things as checking to make sure proposals are complete; weeding out poor proposals; and making recommendations for approval to the Commission itself.

In 1975 state boards were set up; our board was the Ohio State Historical Records Advisory Board. (Several SOA members are on the Board, but it is in abeyance and their terms have actually run out.) The state boards can solicit projects if they think something needs to be done in a certain area. The Commission in Washington sends proposals back to the state board if changes are needed. The Ohio Board is coordinated by Gary Ness (Coordinator) and George Parkinson (Deputy Coordinator).

There are three categories of projects funded: 1) State projects are at the local level and are within one organization. (The records involved do not have to be Ohio records.) 2) Regional projects involve several organizations in more than one state. 3) National projects include more than one region, their influence is national, and they have to have an impact on the community of archivists in general. Grants funded can be very large, up to the size of RLIN's \$400,000 grant, although most are about \$30,000 to \$40,000.

Factors in evaluating proposals include the historical value of the records, the anticipated impact on archival development, and the benefit of the project to the archival profession as a whole. The operational aspects that are considered include the suitability and qualifications of the staff, the soundness of the budget, the possibility of partial funding from inside the institution, the soundness of techniques to be used, and, most important, the assurance that the project will be continued by the institution after the NHPRC grant ends. These factors and other guidelines are listed in a green application booklet which is absolutely essential in writing NHPRC proposals (available to grant proposers from OHS). Dr. Oliver Jones of the Ohio Humanities Council, which in Ohio represents the other national grant funding agency, the National Endowment for the Humanities. OHC has been active for the past 17 years and runs on a biennial budget received from NEH. The Council itself has 25 members, half academic and half from public agencies, and meets three times a year for reviewing proposals and once for planning purposes. OHC works only with nonprofit organizations in the State of Ohio; it does not grant to individuals, although it is possible to set up an *ad hoc* committee and get a grant to the committee.

it was pointed out that OHC proposals are very complex, though a simplification is planned. Private bodies are not as accountable to reviewing agencies and have much more freedom in funding what they wish. On the other hand, one-on-one personal contacts are extremely important and are the key to private funding. Informally getting together with the director of grant funding of a corporation, for example, is the only way to sell your institution.

The types of projects funded can also be different from public grants. Private companies are very interested in database management systems, which could be of benefit in their own operations. Outreach projects are also looked on with favor. Major acquisitions, impossible for government sources to fund, can be gifts of private organizations or individuals. An important factor in successfully asking for private money is getting visibility for the grant. Newspapers and TV are surprisingly interested in this type of publicity. Archival activities can be very marketable. Institutional archives should use the expertise of their institutional development departments to get information on fund-raising and rely a lot on common sense for ideas. The level of awareness of archives in the general public and in the organizations from whom one plans to ask for money must be raised, so that the readiness of corporations and people to give money to such projects is already there when they are asked.

There was a lively discussion after this session, and many ideas were brought forward. It was pointed out that Ohio has more family foundations per capita than any other state.

“Ducking the Cutting Edge: Archival Theory and the Preservation of Electronic Media” by Frederick Stielow—see complete reprint of paper read at this session.

Friday, April 12

Film vs. Computer: Options and Practice in Records Re-formatting. Michael McCormick, Western Reserve Historical Society (chair); Maureen Mullin, Cleveland Public Library; Joseph Zimmerman, Argosy Imaging; Robert Smith, Wright State University.

Joseph Zimmerman of Argosy Imaging presented a slide show and a short talk on computer records and their preservation. His firm does consulting in the imaging industry, “imaging” referring not only to the creation of pictorial art but to successive reproduction in a variety of formats. The

slide show dealt with the various formats, some of them hybrids.

Microfilm’s benefits include its being a very stable medium for permanent security, and in comparison with paper storage, faster retrieval and a reduction of storage space by at least 93 percent. With three types of microfilm cameras, there is a versatility in processing various sizes of paper items. It does require good document preparation, archival-quality processing, and close quality control.

CAR (computer-assisted retrieval of microfilm) is a hybrid between microfilming and data processing. With the addition of computer power it is no longer necessary to worry about filing order. Equipment needed includes a reader/printer and a carousel which holds 200 film rolls. Fields in the software would include folder number, document type, date, location on the microfilm, and cross references.

COM (computer output microfiche) transforms on-line digital data or off-line magnetic tape to microfiche. This is good if there is a high publication rate of documents. The information goes from the mainframe or tapes to the COM recorder, then there are steps of film processing, quality control, and filing. Optical disk scanning is the newest major technology in information storage. Its main advantages are the power and speed of the computer scanning device and the very clear reproduction of documents. Special high-resolution PC monitors are necessary as well as special software (any claims to the contrary notwithstanding).

In document preparation, as with microfilm, bindings must be removed; a scanner is used for data input. Retrieval from the optical disk drive is accomplished with a PC Driver, and the image is printed through the retrieval workstation on a laser printer to obtain hard copy. If one has a window system, commentary and notes can be put on the same screen image. Benefits of this system include a higher storage capacity, rapid retrieval, the possibility of various manipulations—sorting, routing, windowing, audio input/narration, notation (using a stylus to highlight points), and security features.

The big question is whether optical disk storage is archival. Manufacturers call anything that lasts for ten years “archival” and “permanent.” It is not, however, possible to really test the integrity of the image over time. We are not sure of exactly everything that will affect the image. Another question is price; it is still expensive, though in the last five years it has come down a great deal in cost. There are all sorts of “bells and whistles,” all of which add to the expense. It is possible to have as many as four windows open at the same time, and color is available, though this takes an enormous amount of disk

space. A big problem in achieving standardization, which will be necessary to make this a good archival technology, is that almost by definition, the developers of new techniques don’t want their products to be compatible, because then they would have to pay licensing fees to the originators of the standard technology. This situation leads to false starts and the loss of large amounts of money by the earlier users in the field; it also obstructs the development of ANSI standards and causes frustrating problems for users.

Maureen Mullin spoke on the experience of the Cleveland Public Library’s Photo Collection with optical disk storage. She also presented a slide show that described the various types of photographic images in the collection and indicated that a large collection of movie stills was the pilot project for optical disk storage. A video camera is used to scan the images, and descriptors are typed in on a PC, using fields such as film release date, genre, and title. The user can browse through images or keywords, or both at the same time. A note area is reserved for such information as the size of the original image and copyright information. Prints are available at cost from a color printer. From the user’s point of view, there is a 15-minute limit for one individual’s use of the PC. A big advantage in retrieval is that there are multiple access points to an image through the computer.

Ms. Mullin stated that the most time-consuming aspect of the project was the indexing. Finding who people in the photos are can be difficult. An “information box” is available for putative identification. She described the project in terms of staffing and how far it has gone. The staff is now debating whether to store photos in order or allow random-access filing. They are still not sure whether to trust the system completely. An important plus is that access to the original photo is limited. The “quickie” prints made from the SONY monitor are so good that the users often do not have to ask for a photographic reproduction, and even color prints cost only \$2. While the quality is not good enough for enlargement, they are fine for selection purposes when a group is choosing photos for a publication. A larger and better Canon printer is available, but it costs \$19,000. (The whole system cost about \$50,000 a year ago, but would be cheaper now.) Another plus for the library is the publicity the project has generated; a number of new accessions have resulted from this.

A discussion followed concerning the archival quality of the above, which is a WRM system, a type that is unsupported. In other words, the hardware may not be around in a few years. The library is not

overly concerned about the permanence of the images because it is using them as an index, not as a permanent storage medium. Mr. Zimmerman stated that with this technology, instead of fading over time, the pits in the disk will suddenly fill up, causing it to be instantly illegible and making an image "drop out" totally.

Bob Smith spoke on microforms, which can be used in conjunction with computer applications. They have an advantage over electronic media, in that there are ANSI standards for silver gelatin technology, and if stored properly it can be expected to survive for about 300 years. CD ROM has not been around long enough for there to be standards for ANSI to rate. Its storage capacity is much greater than that of microfilm, and a 4 3/4" CD ROM disk can hold 250,000 pages of text, whereas a 100-ft. roll of (16mm?) microfilm may hold 10,000 frames at 22x. Equipment for reading microfilm is much cheaper than that for CD ROM. The quality of image is good in both technologies, CD ROM images being only marginally better for high resolution work (and this requires special, costly hardware). The total cost for microfilming is a fraction of that for CD ROM.

The biggest advantage of microforms over CD ROM, however, is that there are standards for them. The standardization of products, processes, and storage means that one can take something from one facility and read it anywhere else. Micrographics were invented in the 1930s and have been refined over a long time. They are simple, portable, reliable images in compact form. The major drawback is that they do not lend themselves to browsing or user-friendly retrieval. CAR systems, which add the advantages of computer retrieval to micrographics, have not been used much outside the business milieu. Mr. Smith thought that perhaps there would soon be more combining of various technologies in similar ways to join the archival advantages of storage on film with the ease of access of computer technology.

In the following discussion on all three presentations, the problems of emerging technologies were discussed, as was the combination of several technologies such as CD ROM-based indexing of microfilm images and computer scanners to scan 16mm microfilm. The latter are available now, but at the price of \$250,000. Mr. Zimmerman stated that optical disk technology is now at the point where CD technology was in 1976. He said that one of the problems of developing technology is that instead of designing a car and then getting the appropriate tools, the developers design the car around the tools they already have, shackling the imagination and decreasing the possibilities. ■

COUNCIL ACTIONS

May 17, 1991 Ohio Historical Society

Dennis Harrison will direct the membership campaign. Lists of people who are not members but who attended the spring meeting or are on old membership lists will be used.

Extra pages for issues of the Ohio Archivist could be used by the Editor; at this time Council does not feel that cost-cutting measures are needed at this time for the newsletter.

Council expressed its appreciation for OCLC's support of the spring meeting. The fall meeting at Wright State University was discussed; a tour of the Wright Patterson Air Force Base Museum was suggested as an alternative to the Friday morning session.

Archives Week, 1992 - George Bain and Doris Hambacher are to work on ideas for this. Preliminary ideas from George Bain include planning for a statewide observance during the first week in October, 1992, in accordance with the New York State project. This will focus on local events but may

include statewide connecting ties or events. Ideally, this would be part of a first "United States Archives Week". Specific objectives might be: to have at least 15 repositories participate; to prepare publicity releases about it; to approach the state government for proclamations, and to do the same locally; to use this week to launch an initiative for the general good, such as requiring state documents to be printed on acid-free paper; to develop ties with foundations, corporations, and allied professional organizations for funding.

Florence Hoffman was named chair of the Nominating Committee; she will name the other two members.

Barbara Floyd asked Council to consider having only one meeting a year; instead of a second conference, workshops could be offered and Council could take up other business. (See President's Column).

Doris Hambacher was named chair of the Program Committee and George Parkinson chair of the Local Arrangements Committee for the spring 1992 meeting in Columbus.

New email services for archives

SOA members with computers, modems, and access to either the INTERNET or BITNET computer networks can now subscribe to two lists that pertain to topics of interests to archivists. ARCHIVES is an email distribution LISTSERV featuring discussion of professional activities and theory, while CONSDIST focuses on questions of interest primarily to conservators.

ARCHIVES is a relatively new list, having gone on-line this past June. Topics have included: the possible obsolescence of provenance; computer assisted document indexing and retrieval through the usage of optical systems; and photographic reproduction policy and user fees. The user base of the list is still somewhat small, and mostly drawn from university and corporate archives, but notable contributors are emerging, including Richard Cox of the University of Pittsburgh and James C. Anderson of the University of Louisville. To subscribe to the "ARCHIVES" list send email to ListServ@IndyCMS(BITNET) or ListServ@IndyCMS.IUPUI.Edu (Internet) with the following command in the body of the mail: SUB ARCHIVES yourfirstname yourlastname.

The list owner/coordinators are Donna B Harlan, Harlan@UCS.Indiana.Edu (Internet), and John B Harlan, IJBH200@IndyVAX.IUPUI.Edu (Internet).

The CONSDIST list is administered by Walter Henry of Stanford University's Green Library. Unlike ARCHIVES, which is distributed as email upon receipt of messages, CONSDIST is manually compiled and then mailed as a compendium. The list is oriented towards the technical problems of conservation in all media. Recent topics have included the possibility of usage of bleach and redevelopment in photographic collections, hazardous materials in the conservation lab, and emerging reproduction and conservation technologies.

Also, Henry maintains a directory of conservation professionals, compiled from subscriptions to the list. A text file library, including backfiles of the CONSDIST messages, resource directories, bibliographies, and the infamous dictionary of computer "smiley" icons, is available on request. To subscribe send email via Internet or Bitnet to: whenry@lindy.stanford.edu, requesting inclusion. Unlike the ARCHIVES Listserv, this is not an automatic function, and the request can be in normal language. Upon receipt, a short questionnaire for inclusion in the professional directory will be return mailed. The professional directory will be the first message received. The CONSDIST messages will arrive as mailed, usually on about a two-week schedule.

NEWS NOTES

■ **The Ward M. Canaday Center, University of Toledo**, will present two exhibits this fall. The annual University Authors exhibit will display materials written by UT faculty and published during the past academic year. It will run during the month of October. An exhibit looking at the popular culture of 19th-century America through artifacts, photographs, and printed works will open in late November.

■ **The Popular Culture Library, Bowling Green State University**, recently received a series of major additions to the Steve Allen Collection, reflecting his career from the 1950s to the present. Besides the movies in which he has appeared and the books he has written, Allen is best known for the "Steve Allen Show," which aired nightly on NBC from 1956 to 1960. This donation includes manuscript drafts, published articles, signed books, phonograph records, cassette tapes, photos, paintings, awards, and other material.

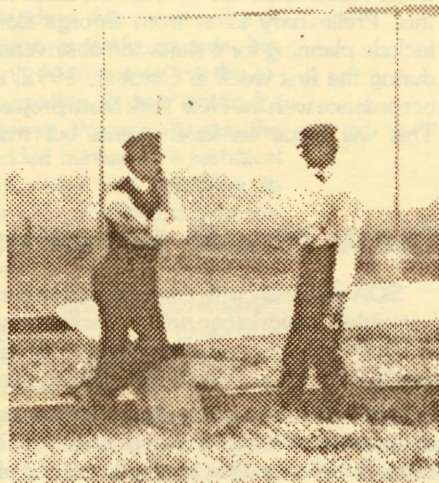
Also received by the **Popular Culture Library** were 335 boxes (over 400 linear feet) of commercial material, production documentation, and original scripts from television soap operas, donated by the Procter & Gamble Company of Cincinnati, the company that virtually created this genre. Dating from 1954 on, these papers include material from: *Edge of Night*; *Another World*; *Search for Tomorrow*; *The Guiding Light*; *For Richer, for Poorer*; *Young Doctor Malone*; *The Loretta Young Show*; and *From These Roots*. Procter & Gamble has provided financial assistance for microfilming this extensive collection. For information call Brenda McCallum, Head Librarian, at 419/372-2450. (From *The Mid-Atlantic Archivist*)

■ **The Allen County Museum** in Lima has been awarded subsequent accreditation (reaccreditation) by the American Association of Museums. Of over 6500 museums nationwide, only 700 have been accredited, and of those, 388 have had their accreditation renewed. Museum Director Ray Schuck reported that the process was very rigorous, with virtually every aspect of the museum's operations examined; this involved a year of self-study and an on-site inspection and evaluation by a team from the Association.

■ **Oberlin College Archives'** publication, *Guide to the Women's History Sources in the Oberlin College Archives*, was one of the two winners of the 1990 Finding Aids

Awards given by the Mid-Atlantic Regional Archives Conference for the best finding aids produced by a repository in the MARAC region or by a MARAC member. Roland Baumann, archivist, edited the publication and compiled it along with Pamela Kirwin Adams and Alexandra Weil, and it is available for purchase.

■ **The Department of Archives & Special Collections, Ohio University Libraries** received the John Sessions Memorial Award at the ALA conference in Atlanta in early July. The annual award is sponsored jointly by the AFL-CIO and the Reference and Adult Services Division of the American Library Association. The award is for library service to labor unions and the labor community. Ohio University won the award for its "The UMWA—a Centenary"



program in winter 1990, which included an exhibit, speakers, and radio programming across southeastern Ohio.

Douglas E. McCabe has joined **OU Archives and Special Collections** as Project Records Manager for a one-year period. He will work to expand the university's records management program to campus units not yet part of the program. McCabe, who recently completed his master's degree in history at Ohio University with an emphasis in archival administration, also has 15 years' experience in advertising and sales promotion in western Ohio.

■ **The Ohio Genealogical Society** in Mansfield announces the death in July of Mrs. Florence Main. Mrs. Main was a charter member of the Ohio Genealogical Society, a Fellow, the winner of the Jane McCafferty Award for Excellence in 1988,

a Trustee 1978-1988, and Chairman of the Library Committee, 1978-1988. She was formerly a reference supervisor at the Western Reserve Historical Society in Cleveland. Florence and Carl Main pioneered the filming of Ohio courthouse records in the 1950s, working in Delaware, Morrow, Muskingum, Guernsey, Morgan, Belmont, Fairfield and Crawford Counties, as well as in the State Auditor's Office. These films were given to the OGS Library. The Ohio Genealogical Society is setting up a memorial fund in Mrs. Main's honor to purchase books and microfilm for the library.

■ **The Ohio Historical Society's Archives-Library Division** has initiated a volunteer program to assist library patrons in using finding aids and microfilm readers and printers. There are seventeen volunteers, who also assist staff members in special projects.

The OHS Government Records Dept. has completed the processing of the Columbus City Clerk's records, which consist of 150 cubic feet of material such as city council proceedings, 1816-1849; city ordinances, 1829-1950; and selected annexation records. For more information on this collection, which spans the years 1816-1980, contact John Stewart, head of the department, at 614/297-2581. Another important collection being processed is that of Ray Charles Bliss. Bliss, an Akron native and graduate of the University of Akron, was Chairman of the Republican National Committee from 1965 to 1969. The collection covers the years from 1945 to his death in 1981, with the majority of the material pertaining to his tenure as chairman. The collection includes photos, political cartoons, and tapes of public statements and speeches.

The keynote speaker at the **OHS** annual meeting on September 28 will be James McPherson, Edwards Professor of History at Princeton and winner of the Pulitzer Prize for history, for his book *Battle Cry of Freedom*.

OHS has published a microfiche edition of its newspaper catalogue (on five sheets). This is a city-by-city list of newspaper holdings in either original newsprint or 35mm microfilm. The Society holds more than 41,000 microfilm rolls and 20,000 newsprint volumes, including 2704 newspapers published in 489 Ohio cities and villages. For additional information contact Stephen Gutgesell, Ohio Historical Cen-

ter, 1982 Velma Avenue, Columbus 43211 (614/297-2568).

■ **The Ohio Newspaper Project** has submitted a grant proposal to the NEH for the third phase of the project, which will run from January 1992 through June 1994 and includes the filming of newspapers from northeast and southeast Ohio.

■ **The Ohio Preservation Council** has been established under the aegis of the **State Library of Ohio** as a coalition of Ohio college/university libraries, public libraries, archives, historical societies, and consortia committed to preserving Ohio's recorded cultural heritage. This includes building cooperation among institutions, publishing a newsletter (*Preservation Issues*), and encouraging the use of alkaline permanent papers in all state documents and other publications of enduring value. Among other ways of furthering preservation of documents are: working on preservation legislation, long-range planning with a statewide scope, grant writing, educational efforts for personnel of libraries and repositories, monitoring emerging technologies, and educating the public. For more information, contact Miriam Kahn, Preservation/Conservation Consultant, The State Library of Ohio, 65 S. Front St., Columbus 43266-0334; tel: 1-800/686-1533 (in Ohio) or 614/644-1972; FAX 614/644-7004.

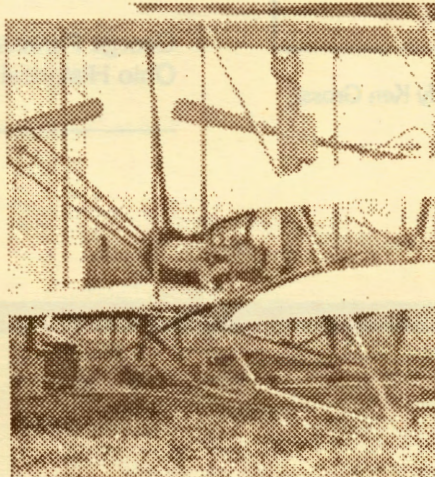
■ The Library of the **Western Reserve Historical Society** completed the final cataloging phase of its grant-funded processing project. Funds from the George Gund and Cleveland Foundations allowed the library to process over 480 collections during a three-year period and to enter MARC-AMC descriptions of 1978 manuscript collections on the OCLC database. Project cataloger Robert Ray left at the end of the project to head the microfilm program for Geauga County.

Anne Scott and Ann Ameling have joined the **WRHS** staff as part-time processors. Barbara Clemenson, former Reference Assistant at WRHS, has taken a position at Case Western Reserve University's Freiburger Library. Her replacement at WRHS is Barbara Waitkus.

■ Sharon Ochsenhirt, C.A., who served from 1974 to 1985 on the staff of the **Archives of the History of American Psychology** at the **University of Akron**, has recently returned to the Archives as Archives Associate. Among recent accessions is the very large collection of papers and films of the late René Spitz, M.D., who was internationally recognized for his studies of the psychopathology of infants. Dur-

ing June two psychologists from The Netherlands spent several days in the Archives. They have been instrumental in the recent establishment of "Stichting Historische Materialen Psychologie" (The Foundation for Historic Psychologic Materials) in Holland, and were interested in the structure and procedure of the Akron institution.

The Cleveland Foundation was named a recipient of the Midwest Archives Conference President's Award in May. Presented at MAC's annual business meeting in Chicago, the award recognizes individual and institutional support of the archival profession. The Foundation was honored for its long tradition of support for archival programs, dating back to 1957. Its interest in archives and history has allowed Cleveland to master its archival resources and to use them to produce new, wide-ranging examinations of its past that have found audiences with both scholars and lay readers. The Curt Teich Foundation of Chicago was the other honoree.



American Movie Classics, the 24-hour television network devoted exclusively to programming Hollywood entertainment produced from the 1930s through the 1970s, is producing a series, "AMC Salutes the States," which showcases the contribution of each state to the history of moviemaking. AMC sent a film crew and the series host, Bob Dorian, to the **Mahoning Valley Historical Society** in May to film Warner Brothers memorabilia in the archives and in Powers Auditorium, the restored Warner theater. MVHS holds photographs, scrapbooks, programs, clippings, and correspondence of Jack Warner and his brothers, who were once Youngstown residents.

■ Former President of Yale and U.S. Ambassador to Great Britain Kingman Brewster died in 1988, and his family is arguing with a garbage collector over his papers. Duane Benning, a recycler looking for stamps and

other items, found part of Brewster's papers in a Martha's Vineyard dumpster. These papers dated from 1930 to 1941 and included a Charles Lindbergh ALS and a statement Brewster made before the Senate Foreign Affairs Committee in 1941. Benning feels that neither the Brewster family nor Yale University has been fair in compensating him for the rescue. He would like at least \$1800, which he said would cover the papers and the cost of restoring them. "My first job was to remove the essence of the dump from this collection," said he to the reporter of *The Vineyard Gazette*. (From *The Plain Dealer* and *The Dusty Shelf*, KCAA)

CALENDAR

September 25-29, 1991: SAA annual meeting, Philadelphia. Contact SAA, 600 S. Federal, Suite 504, Chicago, IL 60605; tel: 312/922-0140.

October 14-16, 1991: First International Conference on Hypermedia and Interactivity in Museums, Pittsburgh; sponsored by **Archives & Museum Informatics**. Contact 412/683-9775; FAX 412/683-7366 at A&MI in Pittsburgh. (P.S.: *The Editor has a brochure if you are interested.*)

October 24-25, 1991: SOA fall meeting, Wright State University. See article on front page.

November 7-9, 1991: MAC fall meeting, Bloomington, Indiana. Contact Sandra Taylor or Becky Cape, Lilly Library, Indiana University, Bloomington 47405; tel: 812/855-2452.

November 6-9, 1991: Museum Computer Network Annual Conference, Santa Monica, California. Contact MCN, 5001 Baum Blvd., Pittsburgh, PA 15213-1851; tel: 412/681-1818

May 19-21, 1992: MAC spring meeting, Chicago, Bismarck Hotel

November 4-7, 1992: MAC fall meeting, Cleveland, Sheraton Hotel

The Society of Ohio Archivists was founded in 1968 to promote on a statewide basis the exchange of information, improvement of professional competence, and coordination of activities of archives and manuscript repositories. Membership is open to all interested persons, particularly archivists, manuscript curators, librarians, records managers, and historians. The Society holds two meetings each year and publishes *The Ohio Archivist* biannually.

Individual memberships are \$10.00 per year (\$15.00 institutional; \$5.00 student). Persons interested in joining the SOA should mail a check or money order made payable to the Society of Ohio Archivists to Kenneth Grossi, Secretary-Treasurer SOA, Ohio State University Archives, 169 Converse Hall, 2121 Tuttle Park Place, Columbus, OH 43210.

THE OHIO ARCHIVIST is a semi-annual publication of the Society of Ohio Archivists. The editors encourage the submission of articles relating to all aspects of the archival profession as well as information concerning archival activities in the state of Ohio. Submission deadlines are January 15 for the Spring number and July 15 for the Autumn number. All materials should be directed to:

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